

CAPACITIVE ACCELERATION SENSOR

Abstract

A capacitive acceleration sensor includes a non-single-crystal-silicon-based substrate, a polysilicon beam structure having a movable section that includes a movable electrode, a polysilicon supporter positioned on the non-single-crystal-silicon-based substrate for fixing the beam structure and forming a distance between the beam structure and the non-single-crystal-silicon-based substrate, a stationary electrode positioned on the non-single-crystal-silicon-based substrate and opposite to the movable section of the beam structure, and a thin film transistor (TFT) control circuit positioned on the non-single-crystal-silicon-based substrate. The stationary electrode and the movable electrode constitute a plate capacitor, and the TFT control circuit is electrically connected to the plate capacitor.